CHALLENGE

Client well continually developed calcium carbonate scale (CaCO3) in the perforations, reducing production. Client was interested in using the WASP® tool to remove the scale from the perforations and to test scale removal from inside the casing. Determine the optimal pulsing rate for removing scale in casing, to maximize efficiency.

HIGHLIGHTS

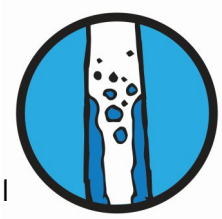
Conventional oil well
Vertically drilled; artificially lifted

LOCATION

South West Texas, USA

CONDITIONS

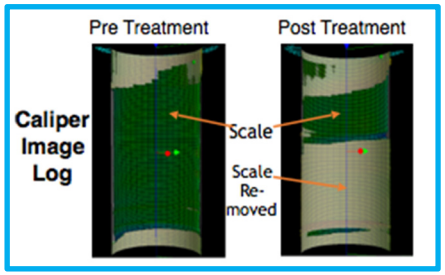
Depth: 1,800 ft (550 m)
Sandstone formation

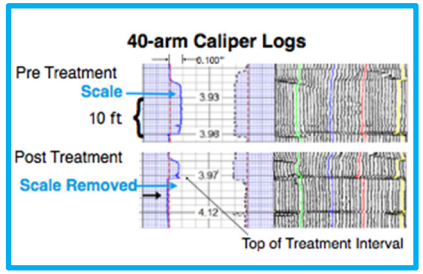


Scale Removal

OUTCOME

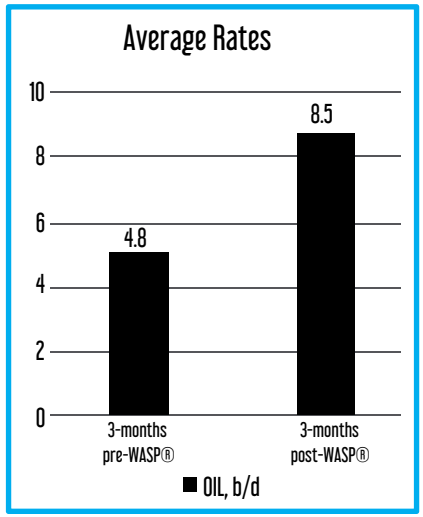
- The post-WASP® multi-finger caliper confirmed that 100% of scale was removed at a pulsing rate of 60 pulses/ft
- Oil production increased from 4.8 b/d to 8.5 b/d when comparing the 3-month pre-WASP® to 3-month post-WASP® rates





100% CaCO3 scale removed

77% increase in oil production



SOLUTION

Remove scale and improve connectivity to the reservoir using electro-hydraulic stimulation technology

- A pre-WASP® multi-finger caliper log was run to identify the thickness of scale in casing
- The perforated interval of the well was stimulated with WASP®
- A post-WASP® multi-finger caliper log was run

BLUESPARK